

An Exciting Find

By TOM IREDALE.

Mrs. C. Mortensen sent me some shells for advice, and as an afterthought added one for determination. To my amazement this shell was one of the most marvellous I have seen, being a giant of a well-known family, of which most of the sizeable members are figured in books of reference. These are the False Staircase Shells, placed alongside the true Staircase Shells, but with which they have little affinity. They are now separated as a Family Heliacidae, apart from the Staircase Shells, which form the Family Architectonidae. The genus was called *Torinia* Gray, 1842, but more recently *Heliacus* d'Orbigny, 1842 both names being given to the same species, but the latter name has priority. The type of *Heliacus* is the shell figured by Chemnitz as *cylindraceum*, a very flat planate shell with a very large umbilicus, now known as *crenellus* Linne. It is beautifully sculptured and has a peculiar operculum not easy to describe. It is about fifteen millimetres in breadth, a little more than half an inch, and shallow in height.

The present shell measures 39 mm. in breadth and 28 mm. in height, and while some members of the family are deeper than the type, their breadth is about the same, showing the great discrepancy in size of this find, which I have called exciting, as it was so unexpected.

Mrs. Mortensen has been persuaded to present the specimen to the Australian Museum, and my sincere thanks, and those of all conchologists, are tendered for this sacrificial act and for the preservation of this wonderful shell. I am dedicating the shell to her so that her name will be perpetuated in connection with this grand species. Moreover, as it differs appreciably in size and form from the other members of the family, I am giving it a distinctive generic name *Grandeliacus*.

Family HELIACIDAE.

Genus GRANDELIACUS, nov.

Type-species, *G. mortensenae*. sp. nov.

(Figure 1.)

Heliacoid shell of large size for the family, depressed globose, spire comparatively high, not elevated, widely umbilicate, umbilicus nearly one-third the width of the shell, mouth subcircular, columella slightly incurved, ending in a small anterior notch suggesting a minute canal. Colour uniform golden fawn or pale honey.

The species has the whorls rather rapidly increasing, sutures canaliculate, periphery with rounded subkeeling on last whorl. Adult whorls five and a half, protoconch small, of one anastrophe whorl, almost smooth. The adult sculpture is very complex, the first whorl with a very fine clathrate sculpture with an upper beaded peripheral keel, the sculpture being better defined on the antepenultimate whorl. Between the suture and the periphery there are closely set radial flattened ribs cut sharply into lozenges by three circular deep spirals forming four distinct lozenges to each radial rib, the beaded spiral succeeding this being separated by another channel followed by a stronger peripheral beaded spiral. The last whorl has the three spirals cutting the radials more weakly, the radials themselves being similarly weakened. The periphery now shows two broad peripheral spirals with a deep channel between them, the lower spiral weaker. The base has about six similar spirals, only slightly marked longitudinal ribbing, while a similar stronger spiral surrounds and enters the umbilicus, decreasing inwards, the spirals still weakly engraved. Breadth as above

39 mm.; height 28 mm.; aperture, breadth 17 mm., height 18 mm., umbilicus about 12 mm. The specimen was collected at Hummock Hill Island, Port Curtis area, Queensland, by Mrs. C. Mortensen, of Miriam Vale, North Coast line, Queensland.



Figure 1.—Three aspects of the holotype of *Grandeliacus mortensenae* Iredale.

History of New South Wales Shells

Part II: The Settlement Years

By TOM IREDALE.

After Cook came the settlement of the new discovery. The place suggested was Botany Bay, recommended by Banks from his visit (Cook had died) and the date of departure was 1787, the arrival 1788, and the bulk of the settlers were to be convicts. The leader was Captain Phillip who was to be the Governor of the new colony. Upon reaching Botany Bay Phillip rightly concluded it was not a suitable place for such a project and ventured northwards in search of a better location. To his delight (and to the benefit of the later Australian Nation) he entered Port Jackson, an unknown inlet, so named by Cook, when passing in the distance. Phillip immediately transferred his little colony and settled well inside the Port (better known now as Sydney Harbour) at a little cove where there was a stream—which he named Sydney Cove. It was not intended as the permanent base, which he established further up the river and named Rosehill (now Parramatta). More experience showed Sydney Cove to be more suitable as it developed itself, and a town named Albion was proposed to be constructed. Through mischance the name was never given and the name Sydney (like Topsy) "just grewed." This slight history is given to explain that in the business of a penal settlement and town planning there was little leisure to devote to the study of natural history. Nevertheless the obvious animals such as birds, fishes, mammals, etc., became familiar, especially on account of the strangeness of the forms, as Emus, Port Jackson Sharks, Kangaroos were seen and procured. Shells, however, did not come into much prominence, though it has been noted that "Governor Phillip spared a little time to collect shells," while Governor Hunter in his account of the early days included three plates showing shells in his account of the colony. Surgeon John White of the First Fleet was very interested in Natural History, and employed a convict named Thomas Watling to paint specimens of the fauna, including shells, and these will be discussed later.

Phillip noted that natives ate a large worm found in decayed wood drawn out of a creek—the first reference to the Shipworm or